Feed the Future Country Fact Sheet

Online Version: https://www.feedthefuture.gov/article/borlaug-fellow-tackles-post-harvest-loss-ghana

Borlaug Fellow Tackles Post-Harvest Loss in Ghana

Steve Sargent/University of Florida

Researcher and Borlaug Fellow Issah Sugri in the lab at the University of Florida.

In the developing world, nearly 30 percent of crops are estimated to be lost before reaching consumers.

Issah Sugri, a researcher at the Savannah Agricultural Research Institute (SARI), based in Bawku, Ghana, is determined to improve post-harvest storage and handling of locally grown commodities. Sugri had already collaborated with his SARI partners on research examining how to reduce post-harvest losses of plantain, millet and spices, but he wanted to broaden his understanding of how to help farmers facing these challenges.

Post-harvest losses “represent a huge mass of food that could be made available for resource-poor people without additional use of land, seed, labor, water and other inputs,” Sugri explained. Nearly half of the estimated increase in food needs between today and 2050 could be met immediately through improved storage and handling techniques.

Since its inception, Feed the Future has recognized the importance of reducing post-harvest losses of critical crops. Improving post-harvest infrastructure, such as storage and transportation, helps markets work more effectively for agricultural producers and extends the reach of nutritious foods to local populations.

In 2012, Sugri participated in the Feed the Future-aligned Norman E. Borlaug International Agricultural Science and Technology Fellowship Program, a training program of the U.S. Department of Agriculture (USDA) in which up-and-coming researchers from selected countries are paired with a mentor from a U.S. land-grant institution for 10-12 weeks. As one of 36 Borlaug Fellows that year, Sugri was assigned to the University of Florida with the specific goal of reducing post-harvest losses of tomatoes by better understanding climate-relevant, low-tech methods of extending shelf life. He focused on tomatoes because they are a key crop in Ghana, providing income to farmers and nutrient diversity to consumers.

After returning to Ghana, Sugri put his fellowship training to immediate use. Collaborating with fellow researchers at SARI, he published a fact sheet for local farmers, which describes optimal harvest and storage conditions. He even included his mobile phone number on the fact sheet, making himself available to field questions and provide clarification. Sugri also worked

closely with extension agents, helping them train producers on how to understand post-harvest loss techniques and their economic benefits, among other topics. At his urging, SARI hired a dedicated food scientist to focus additional research attention on the topic.

Sugri didn't stop there. He went on to produce peer-reviewed journal articles and materials for print as part of a partnership between SARI and North Carolina State Agricultural and Technical State University (NC A&T). The partnership, which was established in 2013 under the auspices of the USDA Scientific Collaborative Research program to conduct research on grain storage, ran training sequences in 15 small communities throughout the Upper East Region of Ghana. The trainings compared properly stored grains with those in poor storage facilities, demonstrating to farmers how proper storage can reduce losses.

SARI and NC A&T continue their collaboration today, focusing on other topics of mutual interest. Sugri remains passionate about helping his home country do better when it comes to post-harvest technology. "We focus our extension messages on low-cost technologies that enhance produce quality and shelf-life," he said. "I think farmers must be encouraged to invest in low-cost technologies that work."